

REMARKS

The Examiner is thanked for the telephone confirmation that the Request for New Action of December 30, 2003, would be granted and the consideration of the publication evidence provided October 1, 2003. The continued allowability of claims 7, 8 13 and 14 is also appreciated.

Even though the new Action finds, "With respect to the evidence provided in paper 19, October 1, 2003, such supports the Examiner's position that antistatic additives provide the layer with conductivity (emphasis added)" the Applicant still maintains that the reduction of resistivity by antistatic additives does not teach the conductivity required for the claimed electrodes. Nevertheless, these are now claimed as the continuous-electrode layers shown in original Fig. 7, now described explicitly in the paragraphs amended on page 10, and further described on page 13, lines 7-10. The insulating layer is also now claimed specifically as electrically insulating, which is supported by the functional description on original page 10, lines 23-27, because the short circuit between the electrode layers only occurs after a nail passes through the pipe, which is hollow, as now also claimed and shown in original Fig. 6, for example.

The rejection of claim 1 under 35 USC 102 for anticipation by the cited Nishino, et al. patent is, therefore, traversed. The Action rejects claim 1 from the Nishino, et al. patent because plastic adhesive layer 13 of the patent is thought to be electrically insulating. This is an assumption unsupported by the patent and, therefore, not supporting the rejection, because it is possible to make adhesives from conductive plastics, for example, by using end group modification. Even the Nishino, et al. patent itself, at col 10, line 59, mentions such modified

polyolefins. There is, therefore, no disclosure in the Nishino, et al. patent of the claimed electrically insulating layer.

The thickness of the adhesive layer 13 of the Nishino, et al. patent further supports the argument that it is not electrically insulating, as claimed. The Nishino, et al. patent discloses, e.g., at col. 4, lines 15 - 19, manufacture of adhesive layer 13 by one of five extruders and, at line 48, that the thickness of the adhesive layer 13 is 0.02 to 0.1 mm. This describes to those of ordinary skill in the art that the adhesive layer cannot be an electric insulator between its adjacent layers, because those of ordinary skill cannot control thickness of extrusion exactly enough as to prevent shorting holes through so thin an adhesive layer. It is not possible to make an electrically separating insulating layer so thin, because it is impossible to extrude such a thin layer precisely enough to avoid spots too thin for electrical insulation or actual gaps that permit electrical breakdown, or at least those of ordinary skill would think so. (The claimed electrically insulating layer retains its claimed electrical separation function despite the air holes described on original page 10 of the specification by being thick enough, in contrast to the thinness taught by the Nishino, et al. patent.) Therefore, the patent does not teach those of ordinary skill in the art toward the invention now claimed.

Furthermore, even if the Nishino, et al. patent taught that anti-static layer 12 could be electrode conductive, taught that adhesive layer 13 could be an electrical insulator, and taught that anti-static layer 14 could be electrode conductive, as all claimed, it does not teach that this combination should be selected from the other possible combinations of the patent. At best, the rejection relies on the Applicant's disclosure to pick features from the patent for reconstruction of the claimed invention, which is impermissible hindsight, of course.

The Action also rejects claim 1 under 35 USC 103 for obviousness from the Brown, et al. and Schmidt patents. This is traversed, because Brown, et al., while disclosing layers arranged as claimed, discloses one electrode layer as formed of wires 14, while the Schmidt patent connects its electrodes. As clearly shown in Fig. 1 of the Brown, et al. patent, the wires 14 are spaced and, therefore, not the continuous-electrode layer claimed. The significance of the difference is made clear by the nail-shorting function disclosed at original page 10, line 23 ff, of the specification. The nail could miss the wires of the Brown, et al. patent by passing through the space between them, at least if it were pin size. The importance of the difference is made clear by the utility disclosed at original page 10, line 28 ff, of the specification. Even a pin-size gas leak undetected inside a building could be dangerous.

This rejection is now further traversed by requiring hollow-pipe components not taught by the solid cable of the Schmidt patent, which should not be combined with the Brown, et al. patent for this additional reason.

The Action also rejects claim 5 under 35 USC 103 for obviousness from the Schmidt and Thomas, et al. patent. This rejection is also traversed by the hollow-pipe limitations now claimed, which exclude the Schmidt patent as above.

The Schmidt patent does not disclose a hollow pipe, but instead a solid cable. The innermost part of the cable is metal wires. Even if these are excluded, then the innermost layer of the Schmidt patent is a paper wrap. Similarly, in the Thomas, et al. patent, the innermost layer is a steel pipe. Thus the combination of Schmidt and Thomas, et al. leads a person skilled in the art towards a totally different solution than the solution according to the claims.

Applicant cited art from January 11, 2002, still needs to be made of record.

Reconsideration and allowance are, therefore, requested.

The Examiner is reminded that extensive art from Information Disclosure Statements has yet to be made of record.

Respectfully submitted,

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